

PROPOSED USE OF THE PLENARY POWERS TO DESIGNATE A NEOTYPE FOR *PEDICULUS DENTATUS* SCOPOLI, 1763 (INSECTA, MALLOPHAGA). Z.N.(S.) 1394

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Scopoli (1763, *Entomologia Carniolica* : 383) described under the name *Pediculus dentatus* a species of Mallophaga occurring on *Anas*. Several genera of Mallophaga occur on *Anas*, of which *Anatoecus* Cummings, 1916 (*Proc. zool. Soc. Lond.* 1916 : 653) and *Trinoton* Nitzsch, 1818 (*Mag. Ent.* (Germar) 3 : 300) are relevant to the present proposal. Scopoli's collections were destroyed in about 1776 (see Horn & Kahle, 1936, *Ent. Beihefte* 3 : 252) and none of his descriptions is adequate for the identification of the species in the absence of a type.

2. The type-species of *Anatoecus* Cummings, 1916, is (by original designation) "*Anatoecus icterodes* Nitzsch" (i.e., *Philoapterus* (*Docophorus*) *icterodes* Nitzsch, 1818, *Mag. Ent.* (Germar) 3 : 290) and the genus belongs to the suborder Ischnocera. Nitzsch gave no description of *icterodes*, but there is an indication in the form of a reference to "Degeer VII. t.4.f.14" (i.e., De Geer, 1778, *Mém. Hist. Ins.* 7 : pl. 4, fig. 14, which depicts a female *Anatoecus* which De Geer did not name). The holotype of *icterodes* is, therefore, the specimen from which De Geer's figure was drawn; not only is this specimen lost, but it would be almost useless even if it were preserved, since the figure represents a female and the species of *Anatoecus* found on ducks are not separable in this sex. Cummings (1916, *Proc. zool. Soc. Lond.* 1916 : 658) separated duck-infesting species of *Anatoecus* into two groups, distinguished by the presence in the male genitalia of one (and absence in the other) of a structure which he called the effractor, and applied the name *icterodes* Nitzsch to the one in which the effractor is absent. Clay & Hopkins (1960, *Bull. Brit. Mus. (nat. Hist.)*, *Ent.* 9 : 39) designated, described and figured a male neotype for *Philoapterus* (*Docophorus*) *icterodes* Nitzsch, 1818, which would fix the name in the sense in which Cummings used it. This neotype is in the British Museum (Natural History) and is labelled "*Anatoecus icterodes* (Nitzsch, 1818), NEOTYPE, *Mergus serrator*, S. Uist, -ix.1953, Meinertzhagen no. 20221a, B.M. 1953, 658".

3. The type-species of *Trinoton* Nitzsch, 1818 (*Mag. Ent.* (Germar) 3 : 300, as a subgenus of *Liotheum*) is, by monotypy, *Liotheum* (*Trinoton*) *conspurcatum* Nitzsch, 1818 (*l. c.* : 300), a *nomen novum* for *Pediculus anseris* Sulzer, 1776, *nec* Linnaeus, 1758, and a subjective synonym of *Trinoton anserinum* (Fabricius, 1805, *Syst. Anulikatorum* : 345). In contrast to *Anatoecus*, which belongs to the Ischnocera, *Trinoton* belongs to the suborder Amblycera. The type-material of *Liotheum conspurcatum* Nitzsch is lost, but that of *Pediculus anserinus* Fabricius is preserved in Copenhagen.

4. The type-species of *Philoapterus* Nitzsch, 1818 (*Mag. Ent.*, (Germar) 3 : 288) is, by subsequent designation (Neumann, 1906, *Bull. Soc. zool. Fr.* 20 : 58), *Pediculus ocellatus* Scopoli, 1763, which Neumann erroneously attributed to

Nitzsch, and the type-species of *Docophorus* Nitzsch, 1818 (*l.c.* : 289) is, by subsequent designation (Clay, 1938, *Entomologist* 71 : 207) also *Pediculus ocellatus* Scopoli, so the two generic names are objective synonyms. As noted above, Scopoli's collections are lost and his descriptions are inadequate ; moreover, in this instance, his host-records indicate that his type-material almost certainly included at least two species. For these reasons Clay & Hopkins (1951, *Bull. Brit. Mus. (nat. Hist.)*, *Ent.* 2 : 8) designated, described and figured a neotype for *Pediculus ocellatus* Scopoli, 1763 (*Entomologia Carniolica* : 382) which would fix the name in harmony with current usage. This neotype is in the British Museum (Natural History) and is labelled : "NEOTYPE, *Philopterus ocellatus* Scopoli, *Corvus corone sardonius*, Yugoslavia, no. 484".

5. The name *dentatus* Scopoli was placed by Denny (1842, *Monographia Anoplurorum Britanniae* : 102) as a synonym of *Docophorus* (now *Anatoecus*) *icterodes* Nitzsch, though he qualified this synonymy by the addition of a question-mark which was removed by Giebel in 1874 (*Insecta epizoa* : 115). Until 1916 it was usual to apply the name *icterodes* to any species resembling that of which Giebel (1874, *Insecta epizoa* : pl. 10, fig. 8) had published Nitzsch's drawing, and to place *dentatus* Scopoli as a synonym in spite of the fact that it is much the older name. In 1916, however, Harrison (*Parasitology* 9 : 13, 93) reversed this arrangement, placing *icterodes* as a synonym of *dentatus*, which he listed as the valid name for all duck-infesting nominal species of what is now the genus *Anatoecus*, all of which he considered to be synonymous. Almost simultaneously Cummings (1916, *Proc. zool. Soc. Lond.* 1916 : 658) erected the genus *Anatoecus* and showed that it contains two groups of species characterized by the presence or absence of the effractor, as mentioned above. After 1916 the name *dentatus* was in general use for a duck-infesting species of *Anatoecus*, but it was usually impossible to tell whether any given author was applying it to the species with an effractor or the one without ; probably most authors had both. Thus the name has been applied to one or more species of *Anatoecus* for about 100 years (until 1916 only as a synonym) though the specific name *icterodes* Nitzsch was also sometimes used. Clay & Hopkins (1951, *Bull. Brit. Mus. (nat. Hist.)*, *Ent.* 2 : 17), finding that both *Anas platyrhynchos* Linn. (the host from which *Pediculus dentatus* Scopoli was probably obtained) and *Mergus serrator* Linn. (the host of *Philopterus icterodes* Nitzsch) are infested by an *Anatoecus* of each group and that Cummings had used the latter name for the species without an effractor, decided that the best solution of the muddle was to fix the name *dentatus* Scopoli on the species in which this structure is present. They therefore designated and figured a neotype which fixed the name in this sense and which has been accepted by all subsequent authors until now. The neotype is in the British Museum (Natural History) and is labelled "NEOTYPE, *Anatoecus dentatus* (Scopoli), Brit. Mus. 1951, 171, Meinertzhagen, *Anas. p. platyrhynchos*, N.E. Poland, Aug. 1945, 4176".

6. Dr. S. von Kéler has now suggested to us, however (*in litt.*) that certain points in Scopoli's description are inconsistent with the reference of *Pediculus dentatus* to *Anatoecus* and indicate that Scopoli's insect belonged to the genus *Trinoton* Nitzsch, 1818. On re-examining Scopoli's description we are forced

to agree that Dr. von Kéler is right and that Scopoli's *dentatus* probably belonged to the genus *Trinoton*, to which no subsequent author has referred the insect.

7. Both the insect to which the specific name *dentatus* was apparently applied by Scopoli and the composite to which all subsequent authors have applied the name are of some veterinary importance, since they parasitize domestic ducks. The confusion which would arise if the name were to be transferred, after over a century, from a member of one of the two suborders of Mallophaga to a species belonging to the other suborder is so obvious that we considered asking the Commission to suppress Scopoli's name, but there are serious objections to this course. Not only has the name *Anatoecus dentatus* (Scopoli) now been accepted for some years as the valid name for the duck-infesting species of *Anatoecus* in which the male possesses an effractor, but it would be almost impossible to ascertain what the valid name of the species is if *dentatus* cannot be used for it. Of the five next senior nominal species of duck-infesting *Anatoecus*, the type of the first (*Anatoecus icterodes* (Nitzsch, 1818)) should be in De Geer's collection at Stockholm but is not there, and the name is in use for the species without an effractor, while the types of the other four were in the Halle collection of Mallophaga, which was almost totally destroyed during the second World War, and are not in the small portion of the collection which survived. In none of the instances is it possible to decide from the description to which species of *Anatoecus* a given name refers.

8. *Anatoecus* Cummings is referred to the family PHILOPTERIDAE Burmeister, 1838, of which DOCOPHORIDAE Mjöberg, 1910 is an objective synonym. *Trinoton* Nitzsch is the type-genus of TRINOTONIDAE Eichler, 1941, which many specialists consider inseparable from MENOPONIDAE Mjöberg, 1910; the latter name, together with LIOTHEIDAE Burmeister, 1838, is dealt with in an application made simultaneously with this one. *Pediculus* Linnaeus, 1758, does not belong to the Mallophaga.

9. In order to avoid the confusion which would result from alteration of the accepted application of the specific name *dentatus*, we ask the International Commission on Zoological Nomenclature:—

- (1) to use its plenary powers to direct that, notwithstanding the fact that certain points in the original description of *Pediculus dentatus* Scopoli, 1763 are not consistent with the neotype designated by Clay & Hopkins (1951, *Bull. Brit. Mus. (nat. Hist)*, Ent. 2 : 17, figs. 21–22, pl. 1, fig. 5), the species so named by Scopoli is to be interpreted by reference to that neotype;
- (2) to place on the Official List of Generic Names in Zoology the following generic names:
  - (a) *Anatoecus* Cummings, 1916, *Proc. zool. Soc. Lond.* 1916 : 653 (gender : masculine) (type-species, by original designation : *Philopterus icterodes* Nitzsch, 1818);
  - (b) *Trinoton* Nitzsch, 1818, *Mag. Ent.* (German) 3 : 300 (gender : neuter) (type-species, by monotypy, *Liotheum (Trinoton) conspurcatum* Nitzsch, 1818 (*Mag. Ent.* (German) 3 : 300);
  - (c) *Philopterus* Nitzsch, 1818, *Mag. Ent.* (German) 3 : 288 (gender :

masculine) (type-species, by subsequent selection by Neumann, 1906, (*Bull. Soc. zool. Fr.* 20 : 58) : *Pediculus ocellatus* Scopoli, 1763);

- (3) to place on the Official List of Specific Names in Zoology the following specific names :

- (a) *dentatus* Scopoli, 1763, *Entomologia Carniolica* : 383 (as published in the binomen *Pediculus dentatus*), as defined under the plenary powers in (1) above by the neotype designated by Clay & Hopkins, 1951 (*Bull. Brit. Mus. (nat. Hist.)*, *Ent.* 2 : 17, figs. 21-22, pl. 1, fig. 5) ;
- (b) *icterodes* Nitzsch, 1818, *Ent. Mag.* (Germar) 3 : 290 (as published in the binomen *Philopterus icterodes*), as defined by the neotype designated by Clay & Hopkins, 1960 (*Bull. Brit. Mus. (nat. Hist.)*, *Ent.* 9 : 37, figs. 59-61, pl. 2, fig. 3) (specific name of type-species of *Anatoecus* Cummings, 1916);
- (c) *anserinus* J. C. Fabricius, 1805, *Syst. Antliatorum* : 345 (as published in the binomen *Pediculus anserinus*) (the oldest available name for the type-species of *Trinoton* Nitzsch, 1818) ;
- (d) *ocellatus* Scopoli, 1763, *Entomologia Carniolica* : 382 (as published in the binomen *Pediculus ocellatus*), as defined by the neotype designated by Clay & Hopkins, 1951, *Bull. Brit. Mus. (nat. Hist.)*, *Ent.* 2 : 8, figs. 8, 9, 11, pl. 1, fig. 2) (type-species of *Philopterus* Nitzsch, 1818) ;

- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names :

- (a) *Trinotum* Burmeister, 1838, *Handb. Ent.* 2(2) : 440 (erroneous subsequent spelling for *Trinoton* Nitzsch, 1818) ;
- (b) *Trinotion* Perry, 1876, *Proc. lit. phil. Soc. Liverpool* 30 : lxxxix (erroneous subsequent spelling for *Trinoton* Nitzsch, 1818) ;
- (c) *Docophorus* Nitzsch, 1818, *Mag. Ent.* (Germar) 3 : 289 (a junior objective synonym of *Philopterus* Nitzsch, 1818) ;

- (5) to place on the Official List of Family-Group Names in Zoology the following names :

- (a) PHILOPTERIDAE Burmeister, 1838, *Handb. Ent.* 2(2) : 422 (type-genus *Philopterus* Nitzsch, 1818) ;
- (b) TRINOTONIDAE Eichler, 1941, *Arch. Naturgesch.* (N.F.) 10 : 382 (type-genus : *Trinoton* Nitzsch, 1818) (for use by those zoologists who consider that *Menopon* Nitzsch, 1818 and *Trinoton* Nitzsch, 1818, belong to different family-group taxa) ;

- (6) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the following name :

- (a) DOCOPHORIDAE Mjöberg, 1910, *Ark. Zool.* 6(13) : 108 (type-genus : *Docophorus* Nitzsch, 1818 (a junior objective synonym of PHILOPTERIDAE Burmeister, 1838).